



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/725,175	11/29/2000	Robert Richardson	41557-187891	8591

26694 7590 09/15/2003

VENABLE, BAETJER, HOWARD AND CIVILETTI, LLP
P.O. BOX 34385
WASHINGTON, DC 20043-9998

EXAMINER

RIOS CUEVAS, ROBERTO JOSE

ART UNIT	PAPER NUMBER,
----------	---------------

2836

DATE MAILED: 09/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/725,175

Applicant(s)

RICHARDSON, ROBERT

Examiner

Roberto J Rios

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10 and 14-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fleischer (US patent 4,529,888) in view of Dassonville (US patent 4,370,607).

As per claims 1 and 14, Fleischer teaches a switching arrangement comprising a modules (Figure 1), to which signals are to be applied, said module carrying two current transformer secondary windings (30a, 30b) and there being a primary transformer loop (24) which is common to each module and which couples with the two transformer windings of each module (Figure 4). Fleischer does not specifically disclose the switching arrangement comprising a plurality of modules and the primary transformer loop comprising a transmission line. However, Dassonville teaches a switching arrangement comprising a plurality of modules (Figure 4; col. 2, line 31), to each of which signals are to be applied, wherein there is a primary transformer loop in the form of a transmission line (LP1) which is common to each module.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Fleischer with the teachings of Dassonville such that the switching arrangement comprising a plurality of modules and

the primary transformer loop comprises a transmission line for the purpose of providing a high-voltage switch.

As per claims 2, 15 and 22, Dassonville teaches the primary transformer loop comprising a coaxial line (Figure 4).

As per claims 3, 16 and 21, Fleischer teaches the two secondary windings on a module being an equal number of opposite turns connected in parallel (Figure 1).

As per claims 4, 17 and 23, Fleischer teaches the module associated with a solid-state switch to which trigger signals are applied via the transmission line (Figure 1).

As per claim 5, Dassonville teaches providing n modules to provide an output voltage of n kV (col. 2, line 31).

As per claims 6, 18 and 24, Dassonville teaches the transmission line including a load resistor (Figure 2).

As per claims 7, 8, 19 and 20, Dassonville teaches the load resistor but does not specifically disclose the load resistor comprising a parallel diode and being located at the middle of the transmission line. However, the Examiner takes official notice that it is well known in the art to use resistive means as a line impedance matching means and to place the resistor at the middle of the line would be a design choice to improve line impedance matching. Moreover, parallel diodes are well known in the art for providing isolating means between power/current sources. *The Examiner wants to point out that applicant has failed to seasonably traverse each and every official notice taken in the last office action mailed on 12/23/2002. If applicant does not seasonably traverse the

Art Unit: 2836

well-known statement during examination, then the object of the well-known statement is taken to be admitted prior art. *In re Chevenard*, 139 F.2d 71, 60 USPQ 239 (CCPA 1943). A seasonable challenge constitutes a demand for evidence made as soon as practicable during prosecution. Thus, applicant was charged with rebutting the well-known statement in the reply filed on 06/23/2003 (paper # 9) after the Office action (mailed on 12/23/2003) in which the well-known statement was made, MPEP§ 2144.03.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to place the resistor at the middle of the transmission line to improve line impedance matching.

As per claim 9, Dasonville teaches means for transmitting current from one source (Vc) along said transmission line and from another source to apply triggering pulses (SC) to said modules (Figure 2).

As per claim 10, Dasonville teaches the current applied from one source being in an opposite direction from the other source (Figure 2).

3. Claims 11-13 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fleischer in view of Dasonville, and further in view of Ashley (US patent 5,070,441).

As per claims 11 and 25, Fleischer in view of Dasonville teaches providing insulation to said transmission line (col. 2, line 46) but does not specifically disclose the insulation being electrostatic shielding. However, Ashley teaches a transmission line comprising an electrostatic shielding (col. 2, line 38).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Dassonville with the teachings of Ashley such that the transmission line comprises an electrostatic shielding for the purpose of shielding the transmission line against electrostatic forces.

As per claims 12 and 26, the Examiner takes official notice that it is well known in the art to interrupt transmission line insulation in order to interconnect any component such as a load resistor. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to break the shielding at the middle of the transmission line to interconnect a load resistor. *The Examiner wants to point out that applicant has failed to seasonably traverse each and every official notice taken in the last office action mailed on 12/23/2002. If applicant does not seasonably traverse the well-known statement during examination, then the object of the well-known statement is taken to be admitted prior art. *In re Chevenard*, 139 F.2d 71, 60 USPQ 239 (CCPA 1943). A seasonable challenge constitutes a demand for evidence made as soon as practicable during prosecution. Thus, applicant was charged with rebutting the well-known statement in the reply filed on 06/23/2003 (paper # 9) after the Office action (mailed on 12/23/2003) in which the well-known statement was made, MPEP§ 2144.03

As per claim 13, Dassonville teaches providing a resistive load (R3) connected to the line insulation.

As per claim 27, Ashley teaches providing an electrostatic shielding but does not specifically disclose providing a resistor connected to said shielding. However, the Examiner takes official notice that it is well known in the art to connect a resistor to a

Art Unit: 2836

transmission line comprising electrostatic shielding. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to connect a resistor to the electrostatic shielding in order to selectively control any current passing or flowing through said shielding.

4. Art of general nature relating to transformer and switching arrangement has been cited for applicant's review.

Response to Arguments

5. Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

Communication with PTO

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberto Rios whose telephone number is (703) 306-5518. In the event that Examiner Rios cannot be reached, his supervisor, Brian Sircus may be contacted at (703) 308-3119. The fax number for Before-Final communications is (703) 872-9318, for After-Final communications is (703) 872-9319, and for Customer Service is (703) 872-9317.



BRIAN SIRCUS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Roberto J. Rios
Patent Examiner